

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) An isolated monoclonal human antibody or antigen-binding fragment thereof that specifically binds to human T cell, immunoglobulin domain and mucin domain 1 (TIM-1), wherein said antibody or antigen-binding fragment thereof specifically binds an epitope on TIM-1 comprising the amino acid sequence PMPLPRQNHEPVAT (SEQ ID NO: 87), and wherein said antibody or antigen-binding fragment thereof comprises a heavy chain amino acid sequence comprising three complementarity determining regions (CDRs) and a light chain amino acid sequence comprising three CDRs, where the three heavy chain CDRs and the three light chain CDRS are selected from:

- (a) a heavy chain CDR1 comprising the amino acid sequence GFIFSRYGMH (SEQ ID NO: 156), a heavy chain CDR2 comprising the amino acid sequence VIWYDGSNKLYADSVKG (SEQ ID NO: 157), a heavy chain CDR3 comprising the amino acid sequence DYYDNSRHHWGFYD (SEQ ID NO: 158), a light chain CDR1 comprising the amino acid sequence RSSRSLDSDDGNTYLD (SEQ ID NO: 159), a light chain CDR2 comprising the amino acid sequence TLSYRAS (SEQ ID NO: 160), and a light chain CDR3 comprising the amino acid sequence MQRVEFPIT (SEQ ID NO: 161);
- (b) a heavy chain CDR1 comprising the amino acid sequence GFTFTNYGLH (SEQ ID NO: 138), a heavy chain CDR2 comprising the amino acid sequence VIWYDGSHKFYADSVKG (SEQ ID NO: 139), a heavy chain CDR3 comprising the amino acid sequence DLDY (SEQ ID NO: 140), a light chain CDR1 comprising the amino acid sequence RASQSVSNYYLA (SEQ ID NO: 141), a light chain CDR2 comprising the amino acid sequence GASSRAT (SEQ ID NO: 142), and a light chain CDR3 comprising the amino acid sequence QQYGSSLPLT (SEQ ID NO: 143);
- (c) a heavy chain CDR1 comprising the amino acid sequence GFTFSSYGMY (SEQ ID NO: 144), a heavy chain CDR2 comprising the amino acid sequence VIWYDGSNKYYADSVKG (SEQ ID NO: 145), a heavy chain CDR3

- comprising the amino acid sequence DFYDSSRYHYGMDV (SEQ ID NO: 146), a light chain CDR1 comprising the amino acid sequence RSSQSLDSDDGNTYLD (SEQ ID NO: 147), a light chain CDR2 comprising the amino acid sequence TVSYRAS (SEQ ID NO: 148), and a light chain CDR3 comprising the amino acid sequence MQRIEFPIT (SEQ ID NO: 149);
- (d) a heavy chain CDR1 comprising the amino acid sequence GGSISSDGYYS (SEQ ID NO: 150), a heavy chain CDR2 comprising the amino acid sequence YIYSGSTFYNP SLKS (SEQ ID NO: 151), a heavy chain CDR3 comprising the amino acid sequence ESPHSSNWYSGFDC (SEQ ID NO: 152), a light chain CDR1 comprising the amino acid sequence RASQSIG SRLH (SEQ ID NO: 153), a light chain CDR2 comprising the amino acid sequence YASQSFS (SEQ ID NO: 154), and a light chain CDR3 comprising the amino acid sequence HQSSNLPFT (SEQ ID NO: 155);
- (e) a heavy chain CDR1 comprising the amino acid sequence GFTFSRYGMH (SEQ ID NO: 162), a heavy chain CDR2 comprising the amino acid sequence VIWYDG SNKLYADSVKG (SEQ ID NO: 157), a heavy chain CDR3 comprising the amino acid sequence DYYDNSRHHWGFDY (SEQ ID NO: 158), a light chain CDR1 comprising the amino acid sequence RASQSIYSYLN (SEQ ID NO: 163), a light chain CDR2 comprising the amino acid sequence AASSLQS (SEQ ID NO: 164), and a light chain CDR3 comprising the amino acid sequence QQSYSTPPT (SEQ ID NO: 165);
- (f) a heavy chain CDR1 comprising the amino acid sequence GFTFRSYGMH (SEQ ID NO: 166), a heavy chain CDR2 comprising the amino acid sequence VIWYDG SNKYYTDSVKG (SEQ ID NO: 167), a heavy chain CDR3 comprising the amino acid sequence DYYDNSRHHWGFDY (SEQ ID NO: 158), a light chain CDR1 comprising the amino acid sequence RASQGIRNDLA (SEQ ID NO: 168), a light chain CDR2 comprising the amino acid sequence AASSLQS (SEQ ID NO: 164), and a light chain CDR3 comprising the amino acid sequence LQHNSYPPS (SEQ ID NO: 169);
- (g) a heavy chain CDR1 comprising the amino acid sequence GFTFSSYGMH (SEQ

- ID NO: 170), a heavy chain CDR2 comprising the amino acid sequence VIWYDGSHKYYADSVKG (SEQ ID NO: 171), a heavy chain CDR3 comprising the amino acid sequence DYYDTSRHHWGFDC (SEQ ID NO: 172), a light chain CDR1 comprising the amino acid sequence RSSQSLLDSEDGNTYLD (SEQ ID NO: 173), a light chain CDR2 comprising the amino acid sequence TLSHRAS (SEQ ID NO: 174), and a light chain CDR3 comprising the amino acid sequence MQRVEFPIT (SEQ ID NO: 161);
- (h) a heavy chain CDR1 comprising the amino acid sequence GFTFSNAWMT (SEQ ID NO: 175), a heavy chain CDR2 comprising the amino acid sequence RIKRRTDGGTTDYAAPVKG (SEQ ID NO: 176), a heavy chain CDR3 comprising the amino acid sequence VDNDVDY (SEQ ID NO: 177), a light chain CDR1 comprising the amino acid sequence RSSQSLLHSNGYNYLD (SEQ ID NO: 178), a light chain CDR2 comprising the amino acid sequence LGSNRAS (SEQ ID NO: 179), and a light chain CDR3 comprising the amino acid sequence MQALQTPLT (SEQ ID NO: 180);
- (i) a heavy chain CDR1 comprising the amino acid sequence GGSVSSGGYYWS (SEQ ID NO: 181), a heavy chain CDR2 comprising the amino acid sequence FIYYTGSTNYPNPSLKS (SEQ ID NO: 182), a heavy chain CDR3 comprising the amino acid sequence DYDWSFHFDY (SEQ ID NO: 183), a light chain CDR1 comprising the amino acid sequence RASQGIRNDLG (SEQ ID NO: 184), a light chain CDR2 comprising the amino acid sequence AASSLQS (SEQ ID NO: 164), and a light chain CDR3 comprising the amino acid sequence LQHNSYPLT (SEQ ID NO: 185);
- (j) a heavy chain CDR1 comprising the amino acid sequence GFTFSNAWMT (SEQ ID NO: 175), a heavy chain CDR2 comprising the amino acid sequence RIKRKTDGGTTDYAAPVKG (SEQ ID NO: 186), a heavy chain CDR3 comprising the amino acid sequence VDNSGDY (SEQ ID NO: 187), a light chain CDR1 comprising the amino acid sequence RSSQSLLHSNGYNYLD (SEQ ID NO: 178), a light chain CDR2 comprising the amino acid sequence LGSNRAS (SEQ ID NO: 179), and a light chain CDR3 comprising the amino acid sequence

MQALQTPLT (SEQ ID NO: 180);

- (k) a heavy chain CDR1 comprising the amino acid sequence GFTFTNYWMS (SEQ ID NO: 188), a heavy chain CDR2 comprising the amino acid sequence NIQQDGSEKYYVDSVRG (SEQ ID NO: 189), a heavy chain CDR3 comprising the amino acid sequence WDY (SEQ ID NO: 190), a light chain CDR1 comprising the amino acid sequence RSSQSLVHSDGNTYLN (SEQ ID NO: 191), a light chain CDR2 comprising the amino acid sequence MISNRFS (SEQ ID NO: 192), and a light chain CDR3 comprising the amino acid sequence MQATESPQT (SEQ ID NO: 193); and
- (l) a heavy chain CDR1 comprising the amino acid sequence GFTFSTYSMN (SEQ ID NO: 194), a heavy chain CDR2 comprising the amino acid sequence YIRSSTSTIYYAESLKG (SEQ ID NO: 195), a heavy chain CDR3 comprising the amino acid sequence DFDY (SEQ ID NO: 196), a light chain CDR1 comprising the amino acid sequence RSSQSLVHSDGDTYLN (SEQ ID NO: 197), a light chain CDR2 comprising the amino acid sequence KISTRFS (SEQ ID NO: 198), and a light chain CDR3 comprising the amino acid sequence MQTTQIPQIT (SEQ ID NO: 199).

2. – 3. (Cancelled)

4. (Previously Presented) The antibody or antigen-binding fragment of claim 1, wherein said antigen-binding fragment comprises a Fab, Fab', F(ab')<sub>2</sub>, or Fv fragment of said antibody.

5. (Previously Presented) The antibody or antigen-binding fragment of claim 1, wherein said antibody is a single chain antibody.

6. (Previously Presented) The antibody or antigen-binding fragment of claim 1, wherein said antibody or antigen-binding fragment is associated with a pharmaceutically acceptable carrier or diluent.

7. (Previously Presented) The antibody or antigen-binding fragment of claim 1, wherein the antibody or antigen-binding fragment is conjugated to a therapeutic agent.
8. (Previously Presented) The antibody or antigen-binding fragment of claim 7, wherein the therapeutic agent is a toxin.
9. (Previously Presented) The antibody or antigen-binding fragment of claim 7, wherein the therapeutic agent is a radioactive isotope.
10. (Previously Presented) The antibody or antigen-binding fragment of claim 7, wherein the therapeutic agent is a chemotherapeutic agent.
11. (Currently Amended) A human monoclonal antibody or antigen-binding fragment thereof that competes for binding with a human antibody that binds to human TIM-1 and comprises a heavy chain amino acid sequence and a light chain amino acid sequence selected from the group consisting of:
  - (a) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 26, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 28;~~
  - (b) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 46, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 48;~~
  - (c) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 34, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 36;~~
  - (d) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 42, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 44;~~
  - (e) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 18, and a sequence that is at least 90% identical to the~~

variable light chain amino acid sequence of SEQ ID NO: 20;

- (f) ~~a sequence that is at least 90% identical to the~~ variable heavy chain amino acid sequence of SEQ ID NO: 38, and ~~a sequence that is at least 90% identical to the~~ variable light chain amino acid sequence of SEQ ID NO: 40;
- (g) ~~a sequence that is at least 90% identical to the~~ variable heavy chain amino acid sequence of SEQ ID NO: 30, and ~~a sequence that is at least 90% identical to the~~ variable light chain amino acid sequence of SEQ ID NO: 32;
- (h) ~~a sequence that is at least 90% identical to the~~ variable heavy chain amino acid sequence of SEQ ID NO: 10, and ~~a sequence that is at least 90% identical to the~~ variable light chain amino acid sequence of SEQ ID NO: 12;
- (i) ~~a sequence that is at least 90% identical to the~~ variable heavy chain amino acid sequence of SEQ ID NO: 2, and ~~a sequence that is at least 90% identical to the~~ variable light chain amino acid sequence of SEQ ID NO: 4;
- (j) ~~a sequence that is at least 90% identical to the~~ variable heavy chain amino acid sequence of SEQ ID NO: 22, and ~~a sequence that is at least 90% identical to the~~ variable light chain amino acid sequence of SEQ ID NO: 24;
- (k) ~~a sequence that is at least 90% identical to the~~ variable heavy chain amino acid sequence of SEQ ID NO: 6, and ~~a sequence that is at least 90% identical to the~~ variable light chain amino acid sequence of SEQ ID NO: 8;
- (l) ~~a sequence that is at least 90% identical to the~~ variable heavy chain amino acid sequence of SEQ ID NO: 14, and ~~a sequence that is at least 90% identical to the~~ variable light chain amino acid sequence of SEQ ID NO: 16; and
- (m) ~~a sequence that is at least 90% identical to the~~ heavy chain amino acid sequence of SEQ ID NO: 50, and ~~a sequence that is at least 90% identical to the~~ light chain amino acid sequence of SEQ ID NO: 52.

12. (Previously Presented) A hybridoma cell line producing the antibody or antigen-binding fragment of claim 1.

13. – 22. (Cancelled)

23. (Previously Presented) An article of manufacture comprising a container, a composition contained therein, and a package insert or label indicating that the composition can be used to treat cancer characterized by the overexpression of TIM-1, wherein the composition comprises the antibody or antigen-binding fragment of claim 1.
24. (Original) The article of manufacture of claim 23, wherein the cancer is a lung, colon, gastric, kidney, renal, prostate or ovarian carcinoma.
25. (Previously Presented) An assay kit for the detection of TIM-1 in mammalian tissues or cells in order to screen for lung, colon, gastric, kidney, renal, prostate or ovarian carcinomas, the TIM-1 being an antigen expressed by lung, colon, gastric, kidney, renal, prostate or ovarian carcinomas, the kit comprising the anti-TIM-1 antibody or antigen-binding fragment thereof of claim 1 and means for indicating the reaction of the antibody with the antigen, if present.
26. (Cancelled)
27. (Previously Presented) The assay kit of claim 25, wherein the anti-TIM-1 antibody or antigen-binding fragment thereof is labeled.
28. (Previously Presented) The assay kit of claim 25, wherein the anti-TIM-1 antibody or antigen-binding fragment thereof is an unlabeled first antibody or antigen-binding fragment thereof and the means for indicating the reaction comprises a labeled second antibody that is anti-immunoglobulin.
29. (Previously Presented) The assay kit of claim 27, wherein the anti-TIM-1 antibody or antigen-binding fragment thereof is labeled with a marker selected from the group consisting of a fluorochrome, an enzyme, a radionuclide and a radiopaque material.
30. (Original) The assay kit of claim 28, wherein the second antibody is labeled with a

marker selected from the group consisting of a fluorochrome, an enzyme, a radionuclide and a radiopaque material.

31. - 32. (Cancelled)

33. (Currently Amended) The isolated human antibody or antigen-binding fragment of ~~claim 2~~ claim 1, wherein said antibody binds to human TIM-1 with a  $K_d$  between  $10^{-7}$  and  $10^{-4}$  M.

34. (Currently Amended) The isolated monoclonal antibody or antigen-binding fragment of claim 1, wherein said antibody or antigen-binding fragment further comprises a heavy chain amino acid sequence and a light chain amino acid sequence selected from the group consisting of:

- (a) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 26, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 28;~~
- (b) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 46, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 48;~~
- (c) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 34, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 36;~~
- (d) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 42, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 44;~~
- (e) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 18, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 20;~~
- (f) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 38, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 40;~~



- (g) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 30, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 32;~~
- (h) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 10, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 12;~~
- (i) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 2, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 4;~~
- (j) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 22, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 24;~~
- (k) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 6, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 8;~~
- (l) ~~a sequence that is at least 90% identical to the variable heavy chain amino acid sequence of SEQ ID NO: 14, and a sequence that is at least 90% identical to the variable light chain amino acid sequence of SEQ ID NO: 16; and~~
- (m) ~~a sequence that is at least 90% identical to the heavy chain amino acid sequence of SEQ ID NO: 50, and a sequence that is at least 90% identical to the light chain amino acid sequence of SEQ ID NO: 52.~~